



**MARYLAND GREEN BUILDING COUNCIL  
MEETING SUMMARY  
LOWE HOUSE OFFICE BUILDING  
24 JULY 2013**

**Attendees:**

Tom Liebel – MDGBC  
Stephen Gilliss – DGS  
David Costello - MDE  
Laura Armstrong - MDE  
Anja Caldwell – MDGBC  
Caroline Varney- Alvarado - DHCD  
Christopher Ho - USM  
Lauren Buckler – DGS  
Anne Jackson - DGS  
Michelle Parker - DGS

Meg Andrews - MDOT  
Sean McGuire - DNR  
Helen Stewart - DNR  
Lauren Urbanek - MEA  
David Lever - PSCP  
Sean McGuire – DNR  
John Evermann – DGS OAG  
Ellen Robertson – DGS  
Crystal Heide - MLS

I. Chairman Tom Liebel brought the meeting to order. Introductions of all attendees followed. He also thanked Sean McGuire for his many years of service as a Maryland pioneer in the green building field and wished him the best of luck in his future endeavors. There was a round of applause for Sean. Sean introduced Helen Stewart as his replacement on the Council as he moves to Oregon.

II. Chairman Liebel turned the floor over to Lauren Buckler of DGS for a brief presentation on Energy Star in the State.

A. Lauren was asked by Matt Power of StateStat (and formerly of the MD Green Building Council for MDP) to present energy Star to the Council for any possible recommendations the Council might have toward the goal of increasing the number of Energy Star buildings in the state (public and private).

B. Energy Star certified buildings are in the top 25% for energy performance for similar facilities, typically use 35% less energy.

C. Buildings are rated on a scale of 100 with a minimum 75 necessary to be certified. This is always a moving target as the peer buildings continue to improve in energy efficiency therefore the newer buildings applying need to be even more efficient.

D. The application process includes inputting data from at least one year of utility bills, statistics such as the number of people and computers in the building and each has to be visited by a licensed engineer or architect. One problem is that many of our buildings are not individually metered.

E. There are 359 Energy Star buildings in Maryland ....approximately 42 are federal, state or local government.

F. Lauren also made an attempt at counting other nearby state's government buildings however, it is an educated guess only as Energy Star is not clearly searchable except by building type.

1. Massachusetts – 524 total – (state govt 0?)

2. Virginia – 989 total – (state govt 1?)

3. New York – 939 total – (state govt 10?)

G. Three recent state buildings have received or applied for energy Star rating

1. Jessup State Office Complex – scored 96 or top 4% of its type. Savings are due to an energy performance contract (EPC) done in 2010-2011 that included Occupancy Sensors, upgraded lighting, controls scheduling and building envelope weather-stripping.
2. Belair Multi Service Center rated an 80 or top 20% for its type. An EPC included cooling tower replacement, building controls upgrade, occupancy sensors, lighting upgrades, building envelope upgrades. In this case the building operators actually helped reduce the energy consumption.
3. Spring Grove hospital complex has been applied for and Lauren is hopeful. Spring grove previously had a centralized plant with unused buildings on it. It has since decentralized and that is saving energy.
4. Some other buildings are going in as well but it takes time to gather the information.

H. Tom asked if they have looked at buildings that don't achieve Energy Star status. Lauren replied that they have as part of MEA's Better Building grant. 10 million square feet of buildings have to be entered into the Energy Star data base. Not all buildings will meet Energy Star status. Tom asked if the information is being used to improve buildings. Lauren replied not at this time. Sean McGuire asked if EPCs required applying for Energy Star. Lauren replied no. Caroline Varney –Alvarado asked if this application process is the same as the Energy Star Portfolio. Lauren answered yes.

I. Lauren said that the MEA grant also is being used for training for agency energy managers and building operators. So far the response has been good. The first training is tomorrow.

J. Tom asked if she found the state buildings hard to categorize for energy Star. Lauren that she has not had a problem categorizing State buildings.

K. Lauren said that StateStat requested that the Council be involved for ways to expand Energy Star in the state. Caroline said that she toured the Morgan State Architecture Building and they weren't familiar with the Energy Star portfolio. Laura Armstrong said that she understands the building is individually metered. Lauren will check with Morgan.

L. Tom's recommendation is to include an Energy Star application in all EPCs. Lauren asked if all new buildings in the green building program could be required to apply for energy star. Tom thought that could be a good idea with a relative small cost for the data entry. This would also allow the engineer to see the actual energy usage versus the modeled energy usage. This might help further tweak a building which is not performing as designed or modeled. Stephen Gilliss noted that the A/E is typically onboard during the 2 year warranty period anyway. Tom asked David Lever if the schools could do that as well. David said that if it were incentivized by saving energy if the burden is not too heavy. Many school systems have energy managers and the option to apply for Energy Star could be included in the funding process.

III. The Council moved on to the continuing task of reviewing the IgCC. Tom Liebel stated that he would like to try to have a draft of the Council's version or modifications of the IgCC to review next month to vote on in September if we can get through all of the chapters today.

A. Sean McGuire asked if we've really established LEED Silver equivalency.

1. Tom said that we're working for a code that works for Maryland first and foremost.
2. Caroline Varney Alvarado said DHCD should also review it. Tom agreed and reiterated that he would like an August draft.
3. Stephen Gilliss said that he believes we've been keeping an eye on LEED as we've been going along. Some sections are going to be stronger than LEED and as a code most of it will be mandatory where many aspects of LEED are optional. At the same time we're not up to speed on LEED V4.
4. Laura Armstrong noted that on a three year cycle the code would have to be reviewed regularly. Tom noted that the same is true of LEED and we will need to try to compare with LEED V4 to make sure that it meets the needs of the State. Laura said that she has

looked at some parts of V4 and that in some areas it has jumped ahead of the IgCC. Tom replied that we have the aspirational goal of meeting LEED and making sure that the IgCC and LEED V4 are not onerous.

B. The Council started with a review of Chapter 7

1. The chapter summary has been distributed and reviewed by DGS and USM
2. There are some minor alterations re: potable water sources. Basically none will be allowed from water collection systems.
3. Metering and sub metering was discussed. Whole building metering should be a minimum however sub metering everything as described could be difficult. Laura noted that LEED V4 will be giving credits for levels of sub metering of different water uses. Stephen Gilliss noted that along with whole building metering we could probably achieve gray water metering where applicable as not that many buildings will necessarily collect water unless required to. It might also be possible to meter discreet large uses of water such as cooling towers.
4. Section 707.4 will have to be changed to include the National Standard Plumbing code which Maryland uses in lieu of the International Plumbing Code.
5. Section 707.11.1.1 would be deleted so that potable water cannot be collected from any surface.
6. Laura noted that Chapter 404 has some crossover in that it calls for reduction of 50% potable water for landscape irrigation. Stephen Gilliss said that we could simply eliminate potable water for any landscape irrigation systems or go further and eliminate irrigation systems altogether in favor of native and drought resistant planting.

C. The Council moved on to Chapter 8 Indoor Environmental Quality

1. Tom noted that this section is very important for schools and children.
2. Section 801 calls for an IEQ plan to comply with sections 802 through 805.
3. Section 802 includes requirements for air handling system and filter access. This should be left in.
4. Section 803 includes common sense best practices for use during construction and operation of the building. 803.2 requires compliance with ASHRAE 55 which appears to be acceptable. 803.3 limits smoking and is do-able. Stephen Gilliss asked if any agencies are looking at banning smoking on any State properties. No – apparently this is too major an issue to implement.
5. Section 803.4.1 calls for full height partitions, self closing doors and exhaust from spaces over 100 square feet housing 5 pieces of printer or copier equipment or janitorial spaces. This was discussed and not found to be onerous. It was also agreed to reduce to 3 pieces of equipment and to delete the 100square foot minimum space size as it is easier to do in smaller spaces. The only catch is that the exhaust requirement becomes an energy use issue.
6. Section 803.5 calls for MERV 11 filtering or higher. LEED gives points for increasing to MERV 13. Anja said MERV 11 should be good and we should add filter change logging. David Lever said it should be part of commissioning and Tom noted that it should continue as an operational requirement. Anja thinks that an actual log on the equipment should be required though tom noted this could be more difficult at remote equipment. David Lever asked how the IgCC deals with Building Automation Systems (BAS). Tom said the BAS could flag filter changes.
7. Section 804 deals with fireplaces and appliances and is acceptable as is as it most likely will see little use anyway in State buildings. Otherwise its good practice.
8. Section 805 lists prohibited materials. Anja said that they are seeing pushback from the modular classroom industry. She said that banning asbestos and formaldehyde are okay. Tom asked if anyone was aware of other chemicals Table 804.2 has a long list of chemicals and limited concentrations. Anja said she's seen info on future wearable

sensors tied to GPS that will actually locate contaminated areas. There is also liability involved especially for individuals with respiratory issues.

9. Section 806 basically limits 85% of materials – paints, sealants, flooring, insulation, carpet, wood products etc.- to being low VOC. Anja would like this to be 100% especially since 85% is harder to measure and control than 100%. David Lever agrees for schools.

10. Section 807 – Acoustics – This section limits sound transmission and background noise. Sean McGuire asked how you measure acoustics in an open office layout. Tom said it would involve ambient /background noise and sound transmission from other spaces. Anja said it looks largely at HVAC equipment and background noise. Tom doesn't think the decibel levels are particularly onerous. Don't believe that LEED has any equivalent to this.

11. Section 808 covers Day lighting. Tom asks if this is rational for all state buildings. Anja said that LEED is more stringent but the credit is often not used. The approach is a little flawed. She likes the German approach of access to light and views. The IgCC appears do-able but could include some exceptions.

12. Section 8 Electives – Anja is looking into which electives to recommend. Tom thanked her for the thorough analysis.

#### D. Chapter 9 Commissioning, Operation and Maintenance

1. Section 902.1.2 – requires an approved agency to have the proper equipment for testing. Tom suggests we tweak this a little so that the commissioning firm has the equipment necessary.

2. Stephen Gilliss noted that this is another of the sections that needs clarification on the code official and in this case the term should probably be deleted.

3. David Lever asked who certifies the commissioning agent (CX). No one really. Tom said that we could call for qualifications. Meg suggested they be licensed engineers. Tom is not sure that's a typical requirement of a CX.

4. Table 903.1 lists all items to be commissioned. Meg suggested deleting the section on Chapter 4 site issues as these are typically covered by other agencies in Maryland, especially sediment and erosion control and storm water. These are also items which LEED does not commission. Stephen Gilliss agreed.

5. Most of the other table 903.1 items are good other than some of the sound testing which is not normally part of commissioning.

6. David Lever asked about training for building which doesn't appear to be covered here. Tom noted that it is not included in LEED. David asked if it could be included here since we can shape it. Stephen Gilliss noted that most of the commissioning scope DGS uses includes training and often includes filming/recording the training. David said that's what he would like to see.

#### IV. Tom opened up the floor for "Once Around the Table".

A. Laura Armstrong noted the upcoming Governor's Climate Change meeting tomorrow July 25, 2013.

B. Anja said she is back from Germany all charged up with green potential. She doesn't understand how Germany with 75% cloud cover could still be full of field of solar panels. We can do more here.

C. David Lever said they are in conversations with MEA to try to have 3 net zero schools. They are expecting applications and starting with elementary schools and work up to high schools.

D. Caroline Varney-Alvarado noted there is a housing conference coming up on September 27 if folks want to put that on their calendars.

E. Lauren Urbanek reminded all of the upcoming MEA/DGS energy management training sessions.

E. Stephen Gilliss again thanked Sean McGuire for all of his years pushing green buildings from the start with Mark Bundy, continuing with the old green building network which has developed on its own now. If there was a Council Hall of Fame, Sean would be a charter member.

VI. The meeting was adjourned at 12 PM. The next meeting location is scheduled for August 28, 2013 at 10 AM in Room 150 of the Lowe House Office Building

The preceding is intended as a summary only of the discussions held on this meeting date. Council members are requested to review the summary and notify the writer of any errors, omissions or unintended misrepresentations of the discussion.